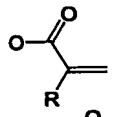
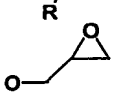
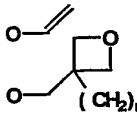
CLAIMS:

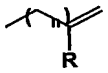
1. A method of moulding materials in which a mould is used having a plurality of mould components with moulding surfaces together defining a moulding cavity, said method comprising the step of forming at least part of the mould components of a polymerisable material and polymerising said material under polymerisation conditions, characterized in that, the starting material before polymerisation is a polymerisable compound of the formula:

Z–X–Y

Y, Z=  R=CH_3, H, Cl, F, CN



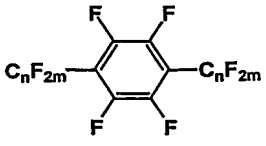
 n=0-3

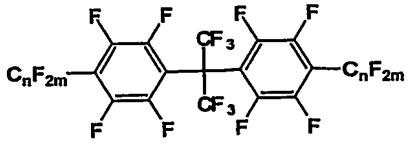
 n = 0-3
R = phenyl, CH_3

X= $(CRR')_nA(CRR')_m$ R,R'=H, alkyl; n,m=0-3

A=C_nF_{2n}, linear or branched, n=4-20

A= combination of perfluorinated aromatic and aliphatic stru





n,m=0-4

wherein

Z and Y independently represent polymerisable groups.

2. A method according to claim 1, characterized in that said polymerisable groups Z and Y are independently chosen from the groups consisting of (meth)acrylate,

oxetane, glycidylether, allylether, epoxy, vinylether and vinylester, or mixtures thereof, wherein Z or Y can be also a thiol group in combination with other radically polymerisable monomers in such a way that crosslinked polymers are obtained.

3. A method according to anyone of the preceding claims, characterized in that the starting material is 2,2'-(2,2,3,3,4,4,5,5-octafluoro 1,6-hexanyloxymethyl)diepoxide, wherein both Y and Z are glycidylether groups.

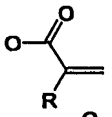
4. A method according to anyone of the preceding claims, characterized in that the starting material is 2,2,3,3,4,4,5,5-octafluoro 1,6-hexanediol-dimethacrylate wherein both Y and Z are methacrylate groups.

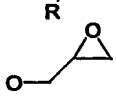
5. A method according to anyone of the preceding claims, characterized in that the F/C-ratio (Fluoro-Carbon ratio) of said polymerisable compound should be higher or equal to 8/14.

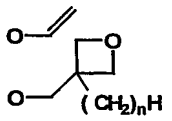
6. A method according to anyone of the preceding claims, characterized in that the moulding cavity being shaped for moulding an optical component therein.

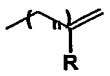
7. A method of moulding materials in which a mould is used having a plurality of mould components with moulding surfaces together defining a moulding cavity, said method comprising the step of forming at least part of the mould components of a polymerisable material, polymerising said material for forming the mould, filling the moulding cavity with a mixture of moulding material, applying UV-light or heat to said moulding material in the mould to set or cure the moulding material, continuing the UV-light or heat treatment until sufficient stiffness has developed in the moulded article and removing the moulded article thus made from the mould, wherein said mould is made of polymerising a polymerisable compound of the formula

Z-X-Y

Y, Z=  R=CH_3, H, Cl, F, CN



 n=0-3

 n = 0-3
R = phenyl, CH_3

X= $(CRR')_nA(CRR')_m$ R,R'=H, alkyl; n,m=0-3

A=C_nF_{2n}, linear or branched, n=4-20

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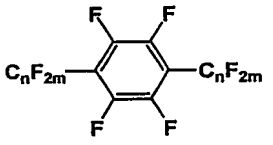
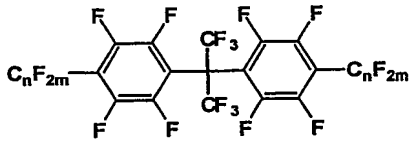




n,m=0-4

wherein

Z and Y independently represent polymerisable groups.

8. A method according to claim 7, characterized in that said polymerisable groups Z and Y are independently chosen from the groups consisting of (meth)acrylate, oxetane, glycidylether, allylether, epoxy, vinylether and vinylester, or mixtures thereof, wherein Z or Y can be also a thiol group in combination with other radically polymerisable monomers in such a way that crosslinked polymers are obtained.

9. A method according to anyone of the claims 7-8, characterized in that the starting material is 2,2,3,3,4,4,5,5-octafluoro 1,6-hexanediol-dimethacrylate wherein both Y and Z are methacrylate groups.

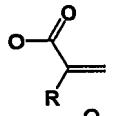
10. A method according to anyone of the claims 7-9, characterized in that the starting material is 2,2'-(2,2,3,3,4,4,5,5-octafluoro 1,6-hexanyloxymethyl)diepoxide wherein both Y and Z are glycidylether groups.

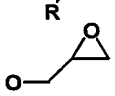
11. A method according to anyone of the claims 7-10, characterized in that the F/C-ratio (Fluoro-Carbon ratio) of said polymerisable compound should be higher or equal to 8/14.

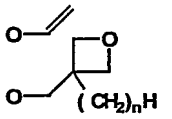
12. Optical components obtained according to a method as disclosed in anyone of the claims 7-11.

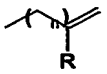
13. A mould for making optical components comprising a plurality of mould components with moulding surfaces together defining a moulding cavity, wherein said mould is obtained by polymerising a mixture comprising, as a main constituent thereof, a polymerisable compound of the formula:

Z–X–Y

Y, Z=  R=CH_3, H, Cl, F, CN



 n=0-3

 n = 0-3
R = phenyl, CH_3

X= $(CRR')_n A (CRR')_m$ R,R'=H, alkyl; n,m=0-3

A=C_nF_{2n}, linear or branched, n=4-20

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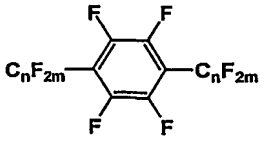

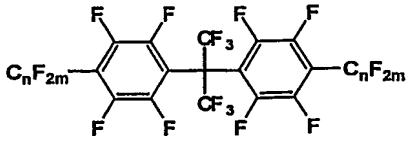

n,m=0-4

wherein

Z and Y independently represent polymerisable groups.

14. A mould according to claim 13, characterized in that said polymerisable groups Z and Y are chosen from the group consisting of (meth)acrylate, oxetane, glycidylether, allylether, epoxy, vinylether and vinylester, or mixtures thereof, wherein Z or Y can be also a thiol group in combination with other radically polymerisable monomers in such a way that crosslinked polymers are obtained.

15. A mould according to claims 13-14, characterized in that the starting material is 2,2,3,3,4,4,5,5-octafluoro 1,6-hexanediol-dimethacrylate wherein both Y and Z are methacrylate groups.

16. A mould according to anyone of the claims 13-15, characterized in that the starting material is 2,2'-(2,2,3,3,4,4,5,5-octafluoro 1,6-hexanyloxymethyl)diepoxide wherein both Y and Z are glycidylether groups.

17. A mould according to anyone of the claims 13-16, characterized in that the F/C-ratio (Fluoro-Carbon ratio) of said polymerisable compound should be higher or equal to 8/14.

18. A mould according to anyone of the claims 13-17, characterized in that the shape of the mould being spherical or a-spherical made of said polymerisable material wherein the aspect ratio of the layer thickness made of said material can be as large as 50.